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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,297	04/02/2004	Gregory H. Bearman	52316/JWP/C766	1886

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EXAMINER
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LEARY, LOUISE N

ART UNIT	PAPER NUMBER
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1654

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/817,297

Applicant(s)

BEARMAN ET AL.

Examiner

Louise N. Leary

Art Unit

1654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

1. Claims 1-28 are pending in this application.
2. The double patenting rejection of claims 1-25 under 35 USC 101 as claiming the same invention as that of claims 1-25 of prior US Patent No. 6,750,036 has been maintained for reasons of record.
3. The rejection of claims 1-25 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-33 of US Patent No. 6,403,332 has been maintained for reason of record.
4. Applicant's arguments filed January 6, 2005 have been fully considered but they are not persuasive.

At page 2 of the "REMARKS/ARGUMENTS", applicants have argued that "[In view of the following remarks, applicants submit that all of pending claims 1-28 are in condition for allowance]". The examiner respectfully disagrees with applicant's arguments after carefully considering each alleged patentable difference. The examiner has explained the reasons for disagreement with applicant's arguments below.

- I. First, the statement, "[... applicants note that the claims of the present application recite limitations not recited in the '036 patent.]", at page 2, was not found persuasive.

Art Unit: 1654

The statement was not persuasive because neither invention describes a "spectral analyzer" that optionally includes a "tunable filter". Rather, both inventions claim a spectral analyzer that includes a tunable filter. Also, both inventions claim "the tunable filter is a liquid crystal filter". Note instant claims 1 and 8 along with claims 1 and 8 of US '036. The statement was not persuasive because the "spectral analyzer" recited in claim 1 of '036 has not been illustrated as operational without a "tunable filter". As a result, the "spectral analyzer" in claim 1 of '036 inherently includes a "tunable filter" as noted by dependent claim 8 of '036 which recites "[8. The method of claim 1, wherein separating the fluorescence includes using a liquid crystal tunable filter.]" Again note column 7, lines 16-17 of US '036. It is noted that at the time this invention was made skilled artisans were cognizant that a "tunable filter" component of a "spectral analyzer" was a required component for performing the step of "separating the fluorescence into wavelength bands" in the both inventions. In addition, each invention claims "[A method of monitoring cellular activity in a cellular specimen...]"; as well as identical or substantially identical method steps, starting materials, and mechanical apparatus for performing the inventions. Further, both inventions claim identical methods and substantially identical systems for performing the methods claimed. Therefor, the instantly claimed inventions are deemed to be the same inventions claimed in the earlier US Patent '036.

Secondly, applicant's statements "[As can be seen from the above comparison, claim 1 of the present application recites the use of a tunable filter in place of the spectral analyzer claimed in the '036 patent. Also, claim 1 of the present application

Art Unit: 1654

includes an additional limitation in the detecting the fluorescence step, namely that each detector generates a signal corresponding to the received wavelength band. This limitation is not found in the claims of the '036 patent. In addition, claim 1 of the present application recites the qualitative and quantitative identification of the contribution to the fluorescence from each excitable marker. No such limitation is recited in the claims of the '036 patent.]; at pages 3-4 of the "REMARKS/ARGUMENTS" were not found persuasive.

The arguments were not found persuasive because albeit instant claim 1 recites a tunable filter the instant specification does not describe "a spectral analyzer" with an optional "tunable filter" that was operational in performing the method as claimed. Likewise, the invention of US '036 does not describe a "spectral analyzer" that is operational without a "tunable filter" that was operational in performing the invention. Neither invention describes interchanging a "spectral analyzer" with a "tunable filter" for performing the separating step claimed. As a result, the examiner disagrees with applicant's assertion that "[As can be seen from the above comparison, claim 1 of the present application recites the use of a tunable filter in place of the spectral analyzer claimed in the '036 patent.].". Therefor, for these reasons the inventions do not claim patentably distinct subject matter.

In regards to applicant's contention that "[Also, claim 1 of the present application includes an additional limitation in the detecting the fluorescence step, namely that each detector generates a signal corresponding to the received wavelength band. This limitation is not found in the claims of the '036 patent.]", it is noted that the even though

Art Unit: 1654

claim 1 of the instant invention recites[...detecting the fluorescence through an array of detectors, with each detector receiving one of the wavelength bands *and generating a corresponding signal*]; claim 1 of US '036 recites “[detecting the fluorescence through an array of detectors, with each detector receiving one of the wavelength bands]” and “*generating a corresponding signal*” is deemed to be an inherent property of the fluorescence through an array of detector. Hence, the addition of the limitation “*generating a corresponding signal*” does not constitute a patentable distinction. Rather, the claim limitation “*generating a corresponding signal*” is an inherent property.

The addition of the instant claim limitation “the qualitative and quantitative identification of the contribution to the fluorescence from each excitable marker” was not found to be patentably distinct from US '036 for the reasons given below. The instantly claim limitation was not found to be patentably distinct from the “analyzing” step of US '036 because both inventions claim a step that “identify the contribution to the fluorescence from each of the plurality of different excitable markers”. As a result, adding the instant limitation “...to qualitatively and quantitatively identify...” to claim 1 merely describes inherent properties encompassed by the step “identify the contribution to the fluorescence from each of the plurality of different excitable markers” in claim 1 of US '036. Thus, the addition of the limitation “...to qualitatively and quantitatively identify...” to instant claim 1 does not constitute a patentably distinct feature or property from the invention claimed in US Patent '036.

II. Applicant's arguments presented at page 4 and page 5 of the REMARKS/ARGUMENTS stating "[Similarly, differences exist between claim 14 of the '036 patent (the only other independent claim in that patent) and claim 14 of the present application.]; and "[As can be seen from the above comparison, claim 14 of the present application recites the use of a plurality of detectors rather than a single detector as claimed in the '036 patent]" were not found persuasive. The arguments were not persuasive because the addition of the instant claim limitation "...plurality of detectors" rather than a single detector in US '036 was not deemed to be a patentably distinct feature. Specifically, regarding the "detector" described in each invention, instant claim 14 recites "...and to convert the fluorescence in to a corresponding plurality of signals"; as compared to "...and to convert the fluorescence into a corresponding signal" recited in claim 14 of US '036. Claim 14 of US '036 does not exclude using a plurality of different detectors. Both inventions claim converting the fluorescence into a single corresponding signal that was received and processed by a different detector for each excitable marker analyzed. In addition, both inventions claim the limitation "an analyzer that is operative to receive the signal and identify the presence of a contribution to the signal from each of the plurality of different excitable markers". In view of these identical limitations, claim 14 of US '036 appears to claim using a different "detector" for each excitable marker analyzed which is equivalent to the instant limitation "a plurality of detectors" claimed.

Regarding applicant's argument "[Furthermore, the combination of a tunable filter and a plurality of detectors is not recited in any claim of the '036 patent.]", the instantly claimed combination argument was not found persuasive because (1) the "spectral analyzer" in claim 1 of '036 inherently includes a "tunable filter" as noted by dependent claim 8 of '036 which recites "[8. The method of claim 1, wherein separating the fluorescence includes using a liquid crystal tunable filter.]" Again note column 7, lines 16-17 of US '036. Also, it is noted that at the time this invention was made skilled artisans were cognizant that a "tunable filter" component of a "spectral analyzer" was a required component for performing the step of "separating the fluorescence into wavelength bands" in the both inventions; and (2) the addition of the instant claim limitation "...plurality of detectors" rather than a single detector in US '036 was not deemed to be a patentably distinct feature. Specifically, regarding the "detector" described in each invention, instant claim 14 recites "...and to convert the fluorescence in to a corresponding plurality of signals"; as compared to "...and to convert the fluorescence into a corresponding signal" recited in claim 14 of US '036. Both inventions claim converting the fluorescence into a single corresponding signal that was received and processed by a detector for each excitable marker analyzed. Claim 14 of US '036 does not exclude using a plurality of different detectors. In addition, both inventions claim the limitation "an analyzer that is operative to receive the signal and identify the presence of a contribution to the signal from each of the plurality of different excitable markers". In view of these identical limitations, claim 14 of US '036 appears to



Art Unit: 1654

claim using a different "detector" for each excitable marker analyzed which is equivalent to the instant limitation "a plurality of detectors" claimed.

Applicant's assertions that "[Also, claim 14 of the present application recites an analyzer which qualitatively and quantitatively identifies the contribution to the fluorescence from each excitable marker. No such limitation is recited in the claims of the '036 patent.]" were not persuasive for the reasons given below. It is noted that the instant claim limitation "the qualitative and quantitative identification of the contribution to the fluorescence from each excitable marker" was not found to be patentably distinct from the "analyzing" step of US '036 because both inventions claim a step that "identify the contribution to the fluorescence from each of the plurality of different excitable markers". As a result, adding the instant limitation "...to qualitatively and quantitatively identify..." to claim 14 merely describes inherent properties encompassed by the step "identify the contribution to the fluorescence from each of the plurality of different excitable markers" in claim 14 of US '036. Thus, the addition of the limitation "...to qualitatively and quantitatively identify..." to instant claim 14 does not constitute a patentably distinct feature or property from the invention claimed in US Patent '036.

For the reasons given above, the double patenting rejection under 35 USC 101 has been maintained.

III. The rejection of claims 1-25 under the judicially created doctrine of obviousness-type double patenting as unpatentable over US Patent 6,403,332 has been maintained for reasons of record.

Art Unit: 1654

Applicant's intent to timely file a Terminal Disclaimer in compliance with 37 CFR 1.32 (c ) upon withdrawal of the remaining objections has been noted.

For the reason given above, the double patenting rejection of claims 1-25 under 35 USC 101 and under the judicially created doctrine of obviousness-type double patenting as unpatentable over US Patent 6,403,332 have been maintained.

**5. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**6.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louise N. Leary whose telephone number is 571-272-0966. The examiner can normally be reached on Monday to Friday from 10 to 6:30.

Art Unit: 1654

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell, can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
LOUISE N. LEARY  
PRIMARY EXAMINER

June 2, 2005